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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/733,095	12/11/2000	Hiroyuki Mukouyama	520.39381X00	3523
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ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-9889				
			EXAMINER WONG, BLANCHE	
			ART UNIT 2667	PAPER NUMBER

DATE MAILED: 04/22/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/733,095

Applicant(s)

MUKOUYAMA ET AL.

Examiner

Blanche Wong

Art Unit

2667

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,9 and 10 is/are rejected.
- 7) ☒ Claim(s) 2-8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. Figure 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities:

On p.8, ln. 4, Examiner suggests removing "for" in – for explaining --, or replacing -- for explaining – with "showing how" in consistent with the other brief description of the drawings.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claim 1** is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Kozaki et al. (U.S. Pat No. 5,710,770).

With regard to claim 1, Kozaki discloses an ATM communication Col. 2, In. 38-41 apparatus Fig. 2 which is connected to a plurality of input lines L14-L16 and a plurality of output lines L50-L53 and transmits a cell received from each of the input lines to one of the plurality of output lines Fig. 5 (see also Col. 2, In. 47-Col. 3, In. 10) which is specified by connection identification information included in a header of the cell (ATM cells have headers), a buffer memory 11 (buffer memory), a write control unit L32, a read control unit L33, and means for adding congestion indication 105 (counter), as recited in claim 1. K

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claim 9** is rejected under 35 U.S.C. 103(a) as being unpatentable over Kozaki and Yoshikawa et al. (U.S. Pat No. 6,532,234).

With regard to claim 9, Kozaki discloses an ATM cell forwarding control method (The invention is an ATM cell switching system and inherently does ATM cell forward, and thus has a cell forwarding control method). However, Kozaki fails to explicitly show writing ATM cells received from each of the input lines into a buffer memory, and reading out, at the ATM node, ATM cells from each of cell queues formed in the buffer memory while guaranteeing a minimum cell rate predetermined for each connection and

controlling a rate so as not to exceed a predetermined peak cell rate, and transmitting each of the ATM cells to an output line corresponding to a connection after adding congestion indication to a cell which is read out from a cell queue of which stored cell amount exceeds a preset threshold, as recited in claim 9.

In an analogous art, Yoshikawa discloses writing ATM cells received from each of the input lines (input port #1-n) into a buffer memory 2 (input buffer), and reading out ATM cells from each of cell queues formed in the buffer memory 3 (output buffer) while guaranteeing a minimum cell rate col. 9, ln. 22 (minimum guaranteed speed) and controlling a rate 5 (rate controller) so as not to exceed a predetermined peak cell rate col. 9, ln. 28-29 (guaranteed QoS), and transmitting each of the ATM cells to an output line (output port #1-n), as recited in claim 9.

A person of ordinary skill in the art would have been motivated to employ Yoshikawa in Kozaki in order to provide high hardware/software efficiency by serving a variety of high-quality and flexible services. Col. 4, ln. 51. The suggestion/motivation to do so would have been to include writing and reading out ATM cells from each lines individually, and using guaranteed and predetermined rates. See para. 6. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to modify an ATM cell forwarding control method to as taught by Yoshikawa, to obtain the invention as specified in claim 9.

7. **Claim 10** is rejected under 35 U.S.C. 103(a) as being unpatentable over Kozaki 5,710,770 and Yoshikawa as applied to claim 9 above, and further in view of Kozaki et al. (U.S. Pat No. 5,838,676).

With regard to claim 10, the combination of Kozaki 5,710,770 and Yoshikawa discloses an ATM cell forwarding control method according to claim 9. However, the combination fails to show transmitting a control cell indicative of occurrence of congestion from a destination end system of the ATM cell added with the congestion indication to a source end system of the ATM cell; and suppressing an ATM cell transmission amount by the source end system which has received the control cell, as recited in claim 10.

In an analogous art, Kozaki 5,838,676 discloses transmitting a control cell (14-1 to 14-n) indicative of occurrence of congestion from a destination end system of the ATM cell (switch) added with the congestion indication to a source end system of the ATM cell (congestion information addition circuit); and suppressing (cell sync circuit) an ATM cell transmission amount by the source end system which has received the control cell, as recited in claim 10.

A person of ordinary skill in the art would have been motivated to employ Kozaki 5,838,676 in the combination of Kozaki 5,710,770 and Yoshikawa in order to minimize congestion, that is, to provide a lower cell discard rate and a capability of efficiently using buffers of the system. Col. 2, ln. 10-17. The suggestion/motivation to do so would have been to add a congestion information addition circuit. See para. 8. At the time of the invention, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine the combination of Kozaki 5,710,770 and Yoshikawa with Kozaki 5,838,676 to obtain the invention as specified in claim 10.

Allowable Subject Matter

8. **Claims 2-8** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Harada et al. (U.S. Pat No. 5,396,460) discloses a I/O FIFO memory that is a memory cell array controlled by read/write.

Ichikawa (U.S. Pat No. 6,301,253) discloses an ATM cell buffer circuit in which an input buffer unit is provided for each line.

Rusu et al. (U.S. Pat No. 6,141,323) discloses a closed loop congestion control using a queue measurement system.

Simpson et al. (U.S. Pat No. 5,987,008) discloses an ATM switch.

Suetsugu (U.S. Pat No. 6,711,133) discloses a method for controlling congestion in ATM switching system.

Sakurai et al. (U.S. Pat No. 6,285,675) and Kozaki et al. (Pub. Date Nov. 22, 2001) disclose an ATM cell switching system similar to Kozaki 5,710,770.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blanche Wong whose telephone number is 703-305-

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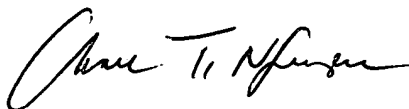
8963. The examiner can normally be reached on Monday through Friday, 830am to 530pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H Pham can be reached on 703-305-4378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BW

BW
April 16, 2004



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SUPERVISORY PATENT EXAMINER
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